

WEST Search History

DATE: Wednesday, February 12, 2003

<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
side by side			result set
<i>DB=USPT,PGPB; PLUR=YES; OP=OR</i>			
L2	"yoneda; toshiyuki".in. or "nomizu; motoyoshi".in. or "kumagai; yoshinari".in.	11	L2
L1	yoneda.in.	1109	L1

END OF SEARCH HISTORY

Connecting via Winsock to Dialog

Logging in to Dialog

Trying 31060000009999...Open

DIALOG INFORMATION SERVICES

PLEASE LOGON:

ENTER PASSWORD:

Welcome to DIALOG

Dialog level 02.12.40D

Last logoff: 10feb03 10:43:40

Logon file405 12feb03 11:23:32

*** ANNOUNCEMENT ***

--File 515 D&B Dun's Electronic Business Directory is now online completely updated and redesigned. For details, see HELP NEWS 515.

--File 990 - NewsRoom now contains October 2002 to present records.
File 993 - NewsRoom archive contains 2002 records from January 2002-September 2002. To search all 2002 records, BEGIN 990,993 or B NEWS2002

--Alerts have been enhanced to allow a single Alert profile to be stored and run against multiple files. Duplicate removal is available across files and for up to 12 months. The Alert may be run according to the file's update frequency or according to a custom calendar-based schedule. There are no additional prices for these enhanced features. See HELP ALERT for more information.

--U.S. Patents Fulltext (File 654) has been redesigned with new search and display features. See HELP NEWS 654 for information.

--Connect Time joins DialUnits as pricing options on Dialog. See HELP CONNECT for information.

--CLAIMS/US Patents (Files 340,341, 942) have been enhanced with both application and grant publication level in a single record. See HELP NEWS 340 for information.

--SourceOne patents are now delivered to your email inbox as PDF replacing TIFF delivery. See HELP SOURCE1 for more information.

--Important news for public and academic libraries. See HELP LIBRARY for more information.

--Important Notice to Freelance Authors--
See HELP FREELANCE for more information

For information about the access to file 43 please see Help News43.

NEW FILES RELEASED

***Dialog NewsRoom - Current 3-4 months (File 990)

***Dialog NewsRoom - 2002 Archive (File 993)

***Dialog NewsRoom - 2001 Archive (File 994)

***Dialog NewsRoom - 2000 Archive (File 995)

***TRADEMARKSCAN-Finland (File 679)

***TRADEMARKSCAN-Norway (File 678)

***TRADEMARKSCAN-Sweden (File 675)

UPDATING RESUMED

***Delphes European Business (File 481)

RELOADED

***D&B Dun's Electronic Business Directory (File 515)
***U.S. Patents Fulltext 1976-current (File 654)
***Population Demographics (File 581)
***Kompas Western Europe (File 590)
***D&B - Dun's Market Identifiers (File 516)

REMOVED

***Chicago Tribune (File 632)
***Fort Lauderdale Sun Sentinel (File 497)
***The Orlando Sentinel (File 705)
***Newport News Daily Press (File 747)
***U.S. Patents Fulltext 1980-1989 (File 653)
***Washington Post (File 146)
***Books in Print (File 470)
***Court Filings (File 793)
***Publishers, Distributors & Wholesalers of the U.S. (File 450)
***State Tax Today (File 791)
***Tax Notes Today (File 790)
***Worldwide Tax Daily (File 792)

***TOXNET data is added to ToxFile (F156)

New document supplier

IMED has been changed to INFOTRIE (see HELP OINFOTRI)

>>> Enter BEGIN HOMEBASE for Dialog Announcements <<<
>>> of new databases, price changes, etc. <<<

* * New CURRENT Year ranges installed * *

SYSTEM:HOME

Cost is in DialUnits

Menu System II: D2 version 1.7.8 term=ASCII

*** DIALOG HOMEBASE(SM) Main Menu ***

Information:

1. Announcements (new files, reloads, etc.)
2. Database, Rates, & Command Descriptions
3. Help in Choosing Databases for Your Topic
4. Customer Services (telephone assistance, training, seminars, etc.)
5. Product Descriptions

Connections:

6. DIALOG(R) Document Delivery
7. Data Star(R)

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/H = Help /L = Logoff /NOMENU = Command Mode

Enter an option number to view information or to connect to an online service. Enter a BEGIN command plus a file number to search a database (e.g., B1 for ERIC).

? b 410

12feb03 11:23:33 User268147 Session D41.1
\$0.00 0.157 DialUnits FileHomeBase
\$0.00 Estimated cost FileHomeBase
\$0.00 Estimated cost this search
\$0.00 Estimated total session cost 0.157 DialUnits

File 410:Chronolog(R) 1981-2003/Jan

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Set Items Description

? set hi %%%%;set hi %%%%
HILIGHT set on as "

HIGHLIGHT set on as "

? b 5, 34, 155, 172

12feb03 11:23:50 User268147 Session D41.2

\$0.00 0.071 DialUnits File410

\$0.00 Estimated cost File410

\$0.06 TELNET

\$0.06 Estimated cost this search

\$0.06 Estimated total session cost 0.228 DialUnits

SYSTEM:OS - DIALOG OneSearch

File 5:Biosis Previews(R) 1969-2003/Feb W1

(c) 2003 BIOSIS

*File 5: Alert feature enhanced for multiple files, duplicates removal, customized scheduling. See HELP ALERT.

File 34:SciSearch(R) Cited Ref Sci 1990-2003/Feb W2

(c) 2003 Inst for Sci Info

*File 34: Alert feature enhanced for multiple files, duplicates removal, customized scheduling. See HELP ALERT.

File 155:MEDLINE(R) 1966-2003/Feb W2

(c) format only 2003 The Dialog Corp.

File 172:EMBASE Alert 2003/Feb W2

(c) 2003 Elsevier Science B.V.

Set Items Description

? s mepe

S1 46 MEPE

? s "matrix extracellular phosphoglycoprotein"

S2 7 "MATRIX EXTRACELLULAR PHOSPHOGLYCOPROTEIN"

? type s2/full/all

Set Items Description

S1 46 MEPE

S2 7 "MATRIX EXTRACELLULAR PHOSPHOGLYCOPROTEIN"

S3 0 "MATRIX EXTRACELLULAR PHOSPHOGLYCOPROTEIN"DS

? s py<=2000

Processing

Processing

Processing

Processing

S433322082 PY<=2000

? s s1 and s4

46 S1

33322082 S4

S5 24 S1 AND S4

? type s5/full/all

5/9/1 (Item 1 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

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12616208 BIOSIS NO.: 200000369710

MEPE, a new gene expressed in bone marrow and tumors causing osteomalacia.

AUTHOR: Rowe Peter S N(a); de Zoysa Priyal A; Dong Rong; Wang Huei Rong; White Kenneth E; Econs Michael J; Oudet Claudine L

AUTHOR ADDRESS: (a)Centre for Molecular Osteo-Renal Research, Department of Biochemistry and Molecular Biology, Royal Free and University College Medical School, Rowland Hill Street, Hampstead, London, NW3 2PF**UK

JOURNAL: Genomics 67 (1):p54-68 July 1, 2000

MEDIUM: print

ISSN: 0888-7543

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

SUMMARY LANGUAGE: English

ABSTRACT: Oncogenic hypophosphatemic osteomalacia (OHO) is characterized by a renal phosphate leak, hypophosphatemia, low-serum calcitriol

(1,25-vitamin-D3), and abnormalities in skeletal mineralization. Resection of OHO tumors results in remission of the symptoms, and there is evidence that a circulating phosphaturic factor plays a role in the bone disease. This paper describes the characterization and cloning of a gene that is a candidate for the tumor-secreted phosphaturic factor. This new gene has been named MEPE (matrix extracellular phosphoglycoprotein) and has major similarities to a group of bone-tooth mineral matrix phospho-glycoproteins (osteopontin (OPN; HGMW-approved symbol SPP1), dentin sialo phosphoprotein (DSPP), dentin matrix protein 1 (DMP1), bone sialoprotein II (IBSP), and bone morphogenetic proteins (BMP). All the proteins including MEPE contain RGD sequence motifs that are proposed to be essential for integrin-receptor interactions. Of further interest is the finding that MEPE, OPN, DSPP, DMP1, IBSP, and BMP3 all map to a defined region in chromosome 4q. Refined mapping localizes MEPE to 4q21.1 between ESTs D4S2785 (WI-6336) and D4S2844 (WI-3770). MEPE is 525 residues in length with a short N-terminal signal peptide. High-level expression of MEPE mRNA occurred in all four OHO tumors screened. Three of 11 non-OHO tumors screened contained trace levels of MEPE expression (detected only after RT-PCR and Southern 32P analysis). Normal tissue expression was found in bone marrow and brain with very-low-level expression found in lung, kidney, and human placenta. Evidence is also presented for the tumor secretion of clusterin (HGMW-approved symbol CLU) and its possible role as a cytotoxic factor in one of the OHO patients described.

DESCRIPTORS:

MAJOR CONCEPTS: Molecular Genetics (Biochemistry and Molecular Biophysics); Tumor Biology

BIOSYSTEMATIC NAMES: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia

ORGANISMS: human (Hominidae)--patient

ORGANISMS: PARTS ETC: bone marrow--blood and lymphatics, immune system; chromosome 4q21.1

BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): Animals; Chordates; Humans; Mammals; Primates; Vertebrates

DISEASES: oncogenic hypophosphatemic osteomalacia--bone disease, metabolic disease, neoplastic disease, nutritional disease

CHEMICALS & BIOCHEMICALS: bone morphogenetic protein; bone sialoprotein II; clusterin; dentin matrix protein-1; dentin sialo phosphoprotein; matrix extracellular phosphoglycoprotein; osteopontin; human MEPE gene (Hominidae)--expression

CONCEPT CODES:

18006 Bones, Joints, Fasciae, Connective and Adipose Tissue-Pathology

03502 Genetics and Cytogenetics-General

03508 Genetics and Cytogenetics-Human

10064 Biochemical Studies-Proteins, Peptides and Amino Acids

13020 Metabolism-Metabolic Disorders

15002 Blood, Blood-Forming Organs and Body Fluids-Blood and Lymph Studies

15004 Blood, Blood-Forming Organs and Body Fluids-Blood Cell Studies

24003 Neoplasms and Neoplastic Agents-Immunology

24004 Neoplasms and Neoplastic Agents-Pathology; Clinical Aspects; Systemic Effects

34502 Immunology and Immunochemistry-General; Methods

34508 Immunology and Immunochemistry-Immunopathology, Tissue Immunology

BIOSYSTEMATIC CODES:

86215 Hominidae

5/9/2 (Item 2 from file: 5)

DIALOG(R)File 5: Biosis Previews(R)

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12075843 BIOSIS NO.: 199900370692

Low dose axillary block by targeted injections of the terminal nerves.

AUTHOR: Koscielniak-Nielsen Zbigniew J(a); Nielsen Per Rotboll; Sorensen Tommy; Stenor Michael

AUTHOR ADDRESS: (a)Department of Anaesthesia and Intensive Care, National University Hospital, Rigshospitalet AN 41**Denmark

JOURNAL: Canadian Journal of Anaesthesia 46 (7):p658-664 July, 1999

ISSN: 0832-610X

DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English; French

ABSTRACT: Purpose: To compare anesthetic time, success rate and adverse effects of axillary block by single or multiple injections of local anesthetic. Methods: Two groups of patients were studied. In group T (targeted injections, n = 53) the four terminal nerves were located by electrical stimulation, and anesthetized with 5 ml mepivacaine 1% with epinephrine 5 mcg/ml (MEPE). In group S (single injection, n = 53) 80 mL MEPE 1% were injected into the neurovascular sheath, transarterially or after eliciting paresthesia. Patchy blocks were supplemented after 30 min. The patient was ready for surgery when analgesia was present in all areas distal to the elbow. Results: The block was complete at 11 min (6-15) in Group T and 7 min (5-13) in group S, $P < 0.01$. Supplementation was required in 46% in group S compared with 13% in group T. $P < 0.001$: anesthesia time was 32 min (19-52) in group T, and 39 min (16-58) in group S, $P = 0.02$. The average doses of MEPE were 3.5 mg/kg (2.4-5.6) in T group and 12.0 mg/kg (8.9-16.4), in S group. However, 22% of patients in group T and 4% in group S reported tourniquet pain, $P = 0.02$. Paresthesia was elicited in 42% of patients in group S and 8% in group T, $P < 0.001$. Conclusions: Small targeted injections of MEPE reduce total anesthetic time, give better spread of analgesia in the hand and forearm, and may be safer than a single large injection.

DESCRIPTORS:

MAJOR CONCEPTS: Anesthesiology (Medical Sciences); Pharmacology
BIOSYSTEMATIC NAMES: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
ORGANISMS: human (Hominidae)--patient
ORGANISMS: PARTS ETC: terminal nerves--nervous system
BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): Animals; Chordates; Humans; Mammals; Primates; Vertebrates
CHEMICALS & BIOCHEMICALS: mepivacaine-epinephrine--local anesthetic-drug, multiple injections, single injections
METHODS & EQUIPMENT: surgery--therapeutic method
MISCELLANEOUS TERMS: low dose axillary block; pain; paresthesia
CONCEPT CODES:
22002 Pharmacology-General
10060 Biochemical Studies-General
12512 Pathology, General and Miscellaneous-Therapy (1971-)
20501 Nervous System-General; Methods
BIOSYSTEMATIC CODES:
86215 Hominidae

5/9/3 (Item 3 from file: 5)
DIALOG(R)File 5: Biosis Previews(R)
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12016512 BIOSIS NO.: 199900297031

Inhibition of agonist-induced vasoconstriction and impairment of endothelium-dependent vasorelaxation by extract of motorcycle exhaust particles in vitro.

AUTHOR: Cheng Yu-Wen; Kang Jaw-Jou(a)

AUTHOR ADDRESS: (a) Institute of Toxicology, College of Medicine, National Taiwan University, No. 1 Jen-Ai Road, Sec**Taiwan

JOURNAL: Journal of Toxicology and Environmental Health Part A 57(2):p 75-87 May 28, 1999

ISSN: 0098-4108

DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English

ABSTRACT: The in vitro effects of motorcycle exhaust particulate extract (MEPE) on blood vessels were studied in thoracic aorta isolated from Wistar rat. The MEPE relaxed the phenylephrine-precontracted aorta

with an EC50 value of 0.05 +/- 0.004 mg/ml. This relaxing effect of MEPE persisted in endothelium-denuded aorta, suggesting that the relaxation induced by MEPE is endothelium-independent. The phenylephrine-induced vasoconstriction and inositol 1,4,5-triphosphate formation were inhibited concentration dependently in aorta pretreated with MEPE. However, the high-K+-induced vasoconstriction and the Ca2+ sensitivity of the contractile proteins were not significantly affected by MEPE. In addition to the inhibitory effects on agonist-induced contraction, the vasorelaxing effects both of acetylcholine and of sodium nitroprusside were impaired by MEPE. The inhibitory effects of MEPE on acetylcholine and sodium nitroprusside, but not phenylephrine, were reversed by cotreatment with superoxide dismutase. These results showed that the MEPE, added in vitro, inhibited the phenylephrine-induced, but not depolarization-induced, vasoconstriction of aorta. The MEPE also impaired the vasorelaxation induced by acetylcholine in a superoxide anion-dependent manner.

REGISTRY NUMBERS: 51-84-3: ACETYLCHOLINE

DESCRIPTORS:

MAJOR CONCEPTS: Cardiovascular System (Transport and Circulation);

Toxicology

BIOSYSTEMATIC NAMES: Muridae--Rodentia, Mammalia, Vertebrata, Chordata, Animalia

ORGANISMS: Wistar rat (Muridae)

ORGANISMS: PARTS ETC: blood vessels--circulatory system; endothelium-denuded aorta--circulatory system; thoracic aorta--circulatory system, vasoconstriction

BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): Animals; Chordates; Mammals; Nonhuman Mammals; Nonhuman Vertebrates; Rodents; Vertebrates

CHEMICALS & BIOCHEMICALS: acetylcholine; motorcycle exhaust particle extract--toxin; 1,4,5-triphosphate--formation

CONCEPT CODES:

14501 Cardiovascular System-General; Methods

22501 Toxicology-General; Methods and Experimental

BIOSYSTEMATIC CODES:

86375 Muridae

5/9/4 (Item 4 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

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11752666 BIOSIS NO.: 199800533362

Validation and features of the Mepron dairy ration evaluator.

AUTHOR: Patton R A(a); Peel C J; Heimbeck W; Brinkman R

AUTHOR ADDRESS: (a)Degussa Corp., Ridgefield Park, NJ**USA

JOURNAL: Journal of Dairy Science 81 (SUPPL. 1):p351 1998

CONFERENCE/MEETING: Joint Meeting of the American Dairy Science Association and the American Society of Animal Science Denver, Colorado, USA July 28-31, 1998

SPONSOR: American Society of Animal Science

ISSN: 0022-0302

RECORD TYPE: Citation

LANGUAGE: English

REGISTRY NUMBERS: 64226-78-4Q: MEPRON; 95233-18-4Q: MEPRON; 59-51-8Q: METHIONINE; 63-68-3Q: METHIONINE; 56-87-1Q: LYSINE; 70-54-2Q: LYSINE; 61-90-5Q: LEUCINE; 328-39-2Q: LEUCINE; 73-32-5Q: ISOLEUCINE; 443-79-8Q: ISOLEUCINE; 72-18-4Q: VALINE; 516-06-3Q: VALINE; 72-19-5Q: THREONINE; 80-68-2Q: THREONINE

DESCRIPTORS:

MAJOR CONCEPTS: Animal Husbandry (Agriculture); Computer Applications (Computational Biology)

BIOSYSTEMATIC NAMES: Bovidae--Artiodactyla, Mammalia, Vertebrata, Chordata, Animalia

ORGANISMS: cow (Bovidae)

BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): Animals; Artiodactyls; Chordates; Mammals; Nonhuman Mammals; Nonhuman Vertebrates; Vertebrates

CHEMICALS & BIOCHEMICALS: isoleucine; leucine; lysine; methionine; threonine; valine

METHODS & EQUIPMENT: Mepron dairy ration evaluator {MepE}--computer program, computer software, user-friendly, validation
MISCELLANEOUS TERMS: Meeting Abstract

CONCEPT CODES:

00530 General Biology-Information, Documentation, Retrieval and Computer Applications
10060 Biochemical Studies-General
13202 Nutrition-General Studies, Nutritional Status and Methods
13214 Nutrition-General Dietary Studies
26502 Animal Production-General; Methods
00520 General Biology-Symposia, Transactions and Proceedings of Conferences, Congresses, Review Annuals

BIOSYSTEMATIC CODES:

85715 Bovidae

5/9/5 (Item 5 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

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11674250 BIOSIS NO.: 199800455981

Protection of human upper respiratory tract cell lines against sulphur mustard toxicity by glutathione esters.

AUTHOR: Andrew D J(a); Lindsay C D

AUTHOR ADDRESS: (a)Biomed. Sci., DERA, CBD Porton Down, Salisbury SP4 0JQ**
UK

JOURNAL: Human & Experimental Toxicology 17 (7):p387-395 July, 1998

ISSN: 0960-3271

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: 1. Human and animal lung cells have been used successfully to model the toxic effects of inhaled sulphur mustard (HD). The epithelia of the upper respiratory tract are, however, the primary targets of inhaled HD. The aim of this study was to assess the potential of the mono- and di-isopropyl esters of glutathione (MIPE and DIPE respectively) as cytoprotectants in the human upper respiratory tract cell lines BEAS-2B and RPMI 2650. 2. The optimal concentrations for cytoprotection were shown to be 1.0 mg/ml for both DEPE and MIPE. Both compounds were found to protect cells by pretreatment, slightly less protection was observed in cells simultaneously exposed to sulphur mustard. The greatest protection was shown where MIPE or DIPE were in situ at the time of exposure to HD. The optimum pre-treatment times were found to be 1 h for MIPE and 2 h for DIPE. Limited protection of cells treated with MEPE or DIPE immediately following HD exposure was also demonstrated. No protection was observed if MIPE or DIPE were not administered immediately following HD exposure. 3. Results suggest that MIPE and DIPE may be effective treatments for exposure to HD by inhalation.

REGISTRY NUMBERS: 7704-34-9: SULPHUR; 70-18-8D: GLUTATHIONE; 7704-34-9: SULFUR

DESCRIPTORS:

MAJOR CONCEPTS: Cell Biology; Toxicology

BIOSYSTEMATIC NAMES: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia

ORGANISMS: BEAS-2B (Hominidae)--human upper respiratory tract cell line;

RPMI 2650 (Hominidae)--human upper respiratory tract cell line

BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): Animals; Chordates; Humans; Mammals; Primates; Vertebrates

CHEMICALS & BIOCHEMICALS: glutathione esters--toxicity protection; sulfur mustard--toxicity, toxin

CONCEPT CODES:

22501 Toxicology-General; Methods and Experimental
02508 Cytology and Cytochemistry-Human
16001 Respiratory System-General; Methods
22002 Pharmacology-General

BIOSYSTEMATIC CODES:

86215 Hominidae

5/9/6 (Item 6 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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11305136 BIOSIS NO.: 199800086468

Monoisopropylglutathione ester protects A549 cells from the cytotoxic effects of sulphur mustard.

AUTHOR: Lindsay Christopher D(a); Hambrook Joy L; Lailey Alison F

AUTHOR ADDRESS: (a)DERA, CBD Porton Down, Salisbury, Wiltshire SP4 0JQ**UK

JOURNAL: Human & Experimental Toxicology 16 (11):p636-644 Nov., 1997

ISSN: 0960-3271

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: 1. The A549 cell line was used to assess the toxicity of sulphur mustard (HD), using gentian violet (GV) and neutral red (NR) dyes as indicators of cell viability. It was found that exposure to concentrations in excess of 40 µM HD resulted in a rapid onset of toxicity. 2. The ability of monoisopropylglutathione ester (MIPE) to protect A549 cells against the effects of a 100 Mm challenge dose of HD was determined using the NR and GV assays. It was found that MIPE (8 mM) could protect cells against the effects of HD though MIPE had to be present at the time of HD challenge. Cultures protected with MIPE were two times more viable than HD exposed cells 48 h after HD challenge when using the GV and NR assays to assess viability. Observations by phase contrast microscopy of NR and GV stained cultures confirmed these findings. Addition of MEPE after previously exposing the A549 cultures to HD (for up to 5 min) maintained cell viability at 72% compared to 37% for unprotected cultures, after which time viability fell significantly so that at 10 min there was no difference in viability between the MIPE treated and untreated cultures. 3. Pretreating A549 cultures with MIPE for 1 h followed by its removal prior to HD challenge did not maintain cell viability. Treatment of cultures with HD for 1 h followed by addition of MIPE did not maintain the viability of the cultures, thus the window within which it was possible for MIPE to rescue cell cultures from the effects of HD was of short duration. 4. High performance liquid chromatography was used to determine the biochemical basis of the actions of MIPE. It was found that whilst intracellular levels of cysteine were increased up to 40-fold following treatment of A549 cell cultures with MIPE, levels of reduced glutathione did not rise. The lack of protection seen in cultures pretreated with MIPE for 1 h prior to HD exposure suggests that raising intracellular cysteine levels was not an effective strategy for protecting cells from the effects of HD. The protection observed is probably due to extracellular inactivation of HD by MIPE.

REGISTRY NUMBERS: 7704-34-9: SULPHUR; 7704-34-9: SULFUR; 70-18-8: REDUCED GLUTATHIONE; 52-90-4Q: CYSTEINE; 3374-22-9Q: CYSTEINE

DESCRIPTORS:

MAJOR CONCEPTS: Cell Biology; Toxicology

BIOSYSTEMATIC NAMES: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia

ORGANISMS: A549 (Hominidae)

BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): Animals; Chordates; Humans; Mammals; Primates; Vertebrates

CHEMICALS & BIOCHEMICALS: cysteine; monoisopropylglutathione ester--protectant; reduced glutathione; sulfur mustard

CONCEPT CODES:

22505 Toxicology-Antidotes and Preventative Toxicology (1972-)

02508 Cytology and Cytochemistry-Human

22002 Pharmacology-General

10060 Biochemical Studies-General

10064 Biochemical Studies-Proteins, Peptides and Amino Acids

BIOSYSTEMATIC CODES:

86215 Hominidae

5/9/7 (Item 7 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)
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04317670 BIOSIS NO.: 000078047213

PRELIMINARY SCHISTOSOMIASIS SURVEY IN THE LOWER VOLTA RIVER BELOW AKOSOMBO
DAM GHANA

AUTHOR: WEN S T; CHU K Y

AUTHOR ADDRESS: SCHISTOSOMIASIS UNIT, P.O. BOX M-190, ACCRA, GHANA.

JOURNAL: ANN TROP MED PARASITOL 78 (2). 1984. 129-134. 1984

FULL JOURNAL NAME: Annals of Tropical Medicine and Parasitology

CODEN: ATPA

RECORD TYPE: Abstract

LANGUAGE: ENGLISH

ABSTRACT: Snail surveys were carried out in Kpong Lake, in southern Ghana, and along the lower Volta River below the lake. *Bulinus globosus* and *Biomphalaria pfeifferi* were abundant in the Kpong Lake and *B. truncatus* and *B. pfeifferi*, especially the latter, were widespread below the lake. Urine surveys among primary school children at 8 localities along the lower Volta showed *Schistosoma haematobium* prevalence rates of 38.8-96.2%. At Bator and Mepe, where records for an earlier survey were available for comparison, the present survey showed more than a doubling in prevalence rate in 10 yr: at Bator, from 27.1% in 1971-1972 to 74.6% in 1981; at Mepe the corresponding figures were 36.4 and 88.0%. In Ghana infection with *S. mansoni* is less common than with *S. haematobium* and the known foci of *S. mansoni* transmission are few and widely scattered. Presently, the disease was first reported along the lower Volta at Bator, Mepe, Adidome and Tefle, with prevalence rates ranging from 6.7% at Bator to 52.4% at Tefle. This survey has added an important focus of *S. mansoni* infection to those already known.

DESCRIPTORS: BULINUS-GLOBOSUS BULINUS-TRUNCATUS BIOMPHALARIA-PFEIFFERI
SCHISTOSOMA-HAEMATOBIMUM SCHISTOSOMA-MANSONI CHILDREN URINE SAMPLE
TRANSMISSION

CONCEPT CODES:

12504 Pathology, General and Miscellaneous-Diagnostic
14006 Digestive System-Pathology
15506 Urinary System and External Secretions-Pathology
25000 Pediatrics
25502 Developmental Biology-Embryology-General and Descriptive
37052 Public Health: Epidemiology-Communicable Diseases
37058 Public Health: Disease Vectors-Animals
64010 Invertebrata, Comparative and Experimental Morphology, Physiology
and Pathology-Platyhelminthes
64026 Invertebrata, Comparative and Experimental Morphology, Physiology
and Pathology-Mollusca
07517 Ecology, Environmental Biology-Water Research and Fishery Biology
(1969-1984)
12100 Movement (1971-)
14001 Digestive System-General; Methods
15010 Blood, Blood-Forming Organs and Body Fluids-Other Body Fluids
15501 Urinary System and External Secretions-General; Methods
62800 Animal Distribution (1971-)

BIOSYSTEMATIC CODES:

45200 Trematoda
61200 Gastropoda
86215 Hominidae

BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA):

Animals
Invertebrates
Helminths
Platyhelminths
Mollusks
Chordates
Vertebrates
Mammals
Primates
Humans

5/9/8 (Item 8 from file: 5)
DIALOG(R)File 5:BIOSIS Previews(R)
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03048671 BIOSIS NO.: 000070074289
THE METHYLATING SYSTEM FOR 3-SN PHOSPHATIDYL CHOLINE BIOSYNTHESIS IN
FUSARIUM-OXYSPORUM-F-SP-LYCOPERSICI
AUTHOR: WILSON A C; BARRAN L R
AUTHOR ADDRESS: DEP. MED., COLL. MED. DENT. N.J., RUTGERS MED. SCH., BUSCH
CAMPUS, PISCATAWAY, N.J. 08854, USA.
JOURNAL: CAN J MICROBIOL 26 (7). 1980. 774-777. 1980
FULL JOURNAL NAME: Canadian Journal of Microbiology
CODEN: CJMIA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: Cell extracts of hyphae of *F. oxysporum* f. sp. *lycopersici* rapidly transferred the methyl group of S-[methyl-3H]adenosyl-L-methionine (Ado-Met) to endogenous phosphatidylethanolamine (PE). Approximately 80% of the radioactivity incorporated into the phospholipid fraction was found in phosphatidylcholine (PC), while the rest of the radioactivity was present in the intermediates monomethylphosphatidylethanolamine (MePE) and dimethylphosphatidylethanolamine (DiMePE). The phospholipid methylating system had a pH optimum of 8.5, a K_m of 30 μ M for Ado-Met and a V_{max} of 10 nmol/h per mg protein. The specific activity of the methylating system was highest in early log phase and lowest in the late log phase of growth. The activity of the cell-free methylating system was reduced by incubation at temperatures $> 25^\circ\text{C}$, and at 37°C approx. 50% of the initial methylating activity remained after incubation for 15 min. In contrast, the activity of the *in vivo* methylation system almost doubled when the incubation temperature was raised from $25-37^\circ\text{C}$.

DESCRIPTORS: ADENOSYL METHIONINE

CONCEPT CODES:

10806 Enzymes-Chemical and Physical
10808 Enzymes-Physiological Studies
13006 Metabolism-Lipids
13012 Metabolism-Proteins, Peptides and Amino Acids
51503 Plant Physiology, Biochemistry and Biophysics-Temperature
51518 Plant Physiology, Biochemistry and Biophysics-Enzymes
51519 Plant Physiology, Biochemistry and Biophysics-Metabolism
06504 Radiation-Radiation and Isotope Techniques
10054 Biochemical Methods-Proteins, Peptides and Amino Acids
10064 Biochemical Studies-Proteins, Peptides and Amino Acids
10066 Biochemical Studies-Lipids
10502 Biophysics-General Biophysical Studies
10506 Biophysics-Molecular Properties and Macromolecules
10614 External Effects-Temperature as a Primary Variable (1971-)
10618 External Effects-Temperature as a Primary Variable-Hot (1971-)
10804 Enzymes-Methods
23001 Temperature: Its Measurement, Effects and Regulation-General
Measurement and Methods
32000 Microbiological Apparatus, Methods and Media

BIOSYSTEMATIC CODES:

15500 Fungi Imperfecti or Deuteromycetes

BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA):

Microorganisms
Plants
Nonvascular Plants
Fungi

5/9/9 (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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09343803 Genuine Article#: 394XH Number of References: 12
Title: The role of traps in the interpretation of Photo-EMF parameters of
organic dye pigments

Author(s): Muller FW; Damm C; Israel G (REPRINT)
 Corporate Source: Univ Halle Wittenberg, Inst Organ Chem, Geusaer Str/D-06217
 Merseburg//Germany/ (REPRINT); Univ Halle Wittenberg, Inst Organ
 Chem, D-06217 Merseburg//Germany/
 Journal: JOURNAL OF INFORMATION RECORDING, 2000, V25, N5-6, P611-632
 ISSN: 1025-6008 Publication date: 20000000
 Publisher: GORDON BREACH SCI PUBL LTD, C/O STBS LTD, PO BOX 90, READING RG1
 8JL, BERKS, ENGLAND
 Language: English Document Type: ARTICLE
 Geographic Location: Germany
 Journal Subject Category: MATERIALS SCIENCE, MULTIDISCIPLINARY; IMAGING
 SCIENCE & PHOTOGRAPHIC TECHNOLOGY
 Abstract: The decay of the transient Photo-ElectroMotive-Force U
 (Photo-E.M.F.) of organic dye pigments can be described as a
 biexponential process [1] even if the signals change the sign of U(t)
 within the decay.

$$U(t) = U-1(0) \exp(-k(1)t) + U-2(0) \exp(-k(2)t)$$

The dependencies of the four parameters U-1(0), U-2(0), k(1) and
 k(2) on wavelength and intensity of the exciting laser flash were
 investigated using Copper(II)-phthalocyanine (CuPc) and
 N,N'-Dimethylperylene-tetra-carboxylic-bisimide (MePe) as pigments
 dispersed in polyvinyl butyral (PVB) layers.

In agreement with the trap concept of MOTT [2,3] the type of
 conductivity (n- or p type photoconduction) of MePe depends on
 the energy of the exciting light. CuPc does not show such a change of
 the photoconduction. More detailed information about the role of traps
 available for photogenerated charge carriers - electron and hole (e/h)
 - can be derived from time resolved Photo-E.M.F. experiments under
 additional continuous illumination of the sample by poly- and
 monochromatic light. The results show, that charge carriers involved in
 Photo-E.M.F. measurements will be influenced mainly by shallow traps
 (Delta E in the meV-range). Occupation of traps by charge carriers
 generated under continuous illumination results in an increase of the
 decay rate for the faster process. This points out, that its parameters
 U-1(0) and k(1) may be attributed to that Photo-E.M.F., generated near
 the surface of the pigment particles.

Descriptors-- Author Keywords: Photo-EMF ; DEMBER-effect ; kinetics ; traps
 ; organic dye pigments

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 ISRAEL G, 1997, V23, P559, J INFORM REC
 KARL N, 1968, THESIS
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5/9/10 (Item 2 from file: 34)
 DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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09343798 Genuine Article#: 394XH Number of References: 21

Title: Effects of polymer matrix on the transient Photo-EMF from organic
 dye pigment layers

Author(s): Damm C; Muller FW (REPRINT); Israel G
 Corporate Source: Univ Halle Wittenberg, Inst Organ Chem, Geusaer Str/D-06217
 Merseburg//Germany/ (REPRINT); Univ Halle Wittenberg, Inst Organ
 Chem, D-06217 Merseburg//Germany/
 Journal: JOURNAL OF INFORMATION RECORDING, 2000, V25, N5-6, P553-566
 ISSN: 1025-6008 Publication date: 20000000
 Publisher: GORDON BREACH SCI PUBL LTD, C/O STBS LTD, PO BOX 90, READING RG1
 8JL, BERKS, ENGLAND

Language: English Document Type: ARTICLE

Geographic Location: Germany

Journal Subject Category: MATERIALS SCIENCE, MULTIDISCIPLINARY; IMAGING SCIENCE & PHOTOGRAPHIC TECHNOLOGY

Abstract: The influence of the polymer matrix on the parameters of the transient Photo-Electro Motive Force (PEMF) was investigated using Copper(II)-phthalocyanine (CuPc) and N,N'-Dimethylperylene-tetracarboxylic-bismide (MePe) as pigments in solid pigment-polymer dispersion layers. 13 polymers with dielectric constants epsilon (r) in the range of 2,5 - 50 were used.

The maximum voltage U-MAX Of the PEMF decreases with increasing dielectric constant epsilon (r) as it is expected from the coulomb law. Unexpectedly there is only a trend in U-MAX as a function of 1/epsilon (r), indicating additional influence of the matrix. Sign (+/-) and decay behaviour $U=f(t)$ will be not influenced by matrix effects. Action spectra $U-MAX=f(\lambda(EXC))$ of MePe/Polymer dispersion layers (polyvinyl butyral, polystyrene, polyvinyl chloride, cellulose-dinitrate) do show a change in sign of PEMF at $\lambda(EXC) = 600-605$ nm independently on the kind of polymer. Using pure matrix-free MePe polycrystalline layers (tablets) this change in sign is shifted to $\lambda(EXC)$ greater than or equal to 615nm. Additionally, at $\lambda(EXC)$ greater than or equal to 615nm U-MAX is very small and the decay $U=f(t)$ is accelerated That can be attributed to a fast charge transport between the microcrystallites in the tablet due to the mutual contact of the MePe-particles.

Descriptors--Author Keywords: Photo-EMF ; Dember-effect ; kinetics ; polymers ; matrix ; organic dye pigments

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5/9/11 (Item 3 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

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09343797 Genuine Article#: 394XH Number of References: 16

Title: The role of traps in the interpretation of Photo-EMF parameters of organic dye pigments

Author(s): Muller FW; Damm C; Israel G (REPRINT)

Corporate Source: Univ Halle Wittenberg,Inst Organ Chem,Geusaer Str/D-06217 Merseburg//Germany/ (REPRINT); Univ Halle Wittenberg,Inst Organ Chem,D-06217 Merseburg//Germany/

Journal: JOURNAL OF INFORMATION RECORDING, 2000, V25, N5-6, P533-552

ISSN: 1025-6008 Publication date: 20000000

Publisher: GORDON BREACH SCI PUBL LTD, C/O STBS LTD, PO BOX 90, READING RG1 8JL, BERKS, ENGLAND

Language: English Document Type: ARTICLE

Geographic Location: Germany

Journal Subject Category: MATERIALS SCIENCE, MULTIDISCIPLINARY; IMAGING SCIENCE & PHOTOGRAPHIC TECHNOLOGY

Abstract: The decay of the transient Photo-ElectroMotive-Force U(Photo-E.M.F.) of organic dye pigments can be described as a biexponential process, even if the signals change the sign of U(t) within the decay. The dependencies of the four kinetic parameters U-1(0); U-2(0); k(1) and k(2) on wavelength and intensity of the exciting laser flash or additional continuous illumination were investigated using N,N'-Dimethylperylene-tetracarboxylic-bisimide (MePe) and Copper(II)-phthalocyanine (CuPc) as pigments dispersed in polyvinyl butyral (PVB) layers.

In agreement with the trap concept of MOTT the type of conductivity (n- or p-type photoconduction) of MePe depends on the energy of the exciting light. CuPc does not show such a change of the photoconduction.

More detailed information about the role of traps available for photogenerated charge carriers can be derived from time resolved Photo-E.M.F. experiments under additional continuous illumination of the sample by poly- and monochromatic light. The results show, that charge carriers involved in Photo-E.M.F. measurements will be influenced mainly by shallow traps (DeltaE in the meV-range).

Occupation of traps by charge carriers generated under continuous illumination results in an increase of the decay rate for the faster process. This points out, that its parameters U-1(0) and k(1) may be attributed to a partial Photo-E.M.F. generated near the surface of the pigment particles.

Descriptors--Author Keywords: photo-EMF ; DEMBER-effect ; kinetics ; traps ; organic dye pigments

Cited References:

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DAMM C, UNPUB
DAMM C, 1996, V23, P53, J INFORM REC
DEMBER H, 1932, V32, P554, PHYS Z
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KARL N, 1968, THESIS FREIBURG
MOTT NF, 1938, V167, P ROY SOC A
ROSCHE K, 1997, THESIS M LUTHER U HA
SCHON M, 1946, V158, P306, NATURE

5/9/12 (Item 4 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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08828447 Genuine Article#: 334PU Number of References: 56

Title: MEPE, a new gene expressed in bone marrow and tumors causing osteomalacia

Author(s): Rowe PSN (REPRINT) ; deZoysa PA; Dong R; Wang HR; White KE; Econs MJ; Oudet CL

Corporate Source: ROYAL FREE & UNIV COLL MED SCH, DEPT BIOCHEM & MOL BIOL, CTR MOL OSTEO RENAL RES, ROWLAND HILL ST/LONDON NW3 2PF//ENGLAND/ (REPRINT); ULP, INSERM, CNRS, INST GENET & BIOL MOL & CELLULARE/ILLKIRCH GRAFFENSTADEN//FRANCE; INDIANA UNIV, SCH MED, DEPT MED/INDIANAPOLIS//IN/46202

Journal: GENOMICS, 2000, V67, N1 (JUL 1), P54-68

ISSN: 0888-7543 Publication date: 20000701

Publisher: ACADEMIC PRESS INC, 525 B ST, STE 1900, SAN DIEGO, CA 92101-4495

Language: English Document Type: ARTICLE

Geographic Location: ENGLAND; FRANCE; USA

Subfile: CC LIFE--Current Contents, Life Sciences

Journal Subject Category: BIOTECHNOLOGY & APPLIED MICROBIOLOGY; GENETICS & HEREDITY

Abstract: Oncogenic hypophosphatemic osteomalacia (OHO) is characterized by a renal phosphate leak, hypophosphatemia, low-serum calcitriol (1,25-vitamin-D3), and abnormalities in skeletal mineralization. Resection of OHO tumors results in remission of the symptoms, and there is evidence that a circulating phosphaturic factor plays a role in the bone disease. This paper describes the characterization and cloning of a gene that is a candidate for the tumor-secreted phosphaturic factor. This new gene has been named MEPE (matrix extracellular phosphoglycoprotein) and has major similarities to a group of bone-tooth mineral matrix phospho-glycoproteins (osteopontin (OPN; HGMW-approved symbol SPP1), dentin sialo phosphoprotein (DSPP), dentin matrix protein 1 (DMP1), bone sialoprotein II (IBSP), and bone morphogenetic proteins (BMP). All the proteins including MEPE contain RGD sequence motifs that are proposed to be essential for integrin-receptor interactions. Of further interest is the finding that MEPE, OPN, DSPP, DMP1, IBSP, and BMP3 all map to a defined region in chromosome 4q. Refined mapping localizes MEPE to 4q21.1 between ESTs D482785 (WI-6336) and D4S2844 (WI-3770). MEPE is 525 residues in length with a short N-terminal signal peptide. High-level expression of MEPE mRNA occurred in all four OHO tumors screened. Three of 11 non-OHO tumors screened contained trace levels of MEPE expression (detected only after RT-PCR and Southern P-39 analysis). Normal tissue expression was found in bone marrow and brain with very-low-level expression found in lung, kidney, and human placenta. Evidence is also presented for the tumor secretion of clusterin (HGMW-approved symbol CLU) and its possible role as a cytotoxic factor in one of the OHO patients described. (C) 2000 Academic Press.

Identifiers--KeyWord Plus(R): LINKED HYPOPHOSPHATEMIC RICKETS; ONCOGENIC OSTEOMALACIA; PROHORMONE CONVERTASES; MORPHOGENETIC PROTEIN; PROPROTEIN CONVERTASE; CELL-DEATH; PEX GENE; OSTEOPONTIN; CLUSTERIN; SEQUENCES

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5/9/13 (Item 5 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

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08202768 Genuine Article#: 257HG Number of References: 46

Title: Core-shell particles and hollow shells containing metallo-supramolecular components

Author(s): Caruso F (REPRINT) ; Schuler C; Kurth DG

Corporate Source: MAX PLANCK INST COLLOIDS & INTERFACES/D-14424 POTSDAM/GERMANY/ (REPRINT)

Journal: CHEMISTRY OF MATERIALS, 1999, V11, N11 (NOV), P3394-3399

ISSN: 0897-4756 Publication date: 19991100

Publisher: AMER CHEMICAL SOC, 1155 16TH ST, NW, WASHINGTON, DC 20036

Language: English Document Type: ARTICLE

Geographic Location: GERMANY

Subfile: CC PHYS--Current Contents, Physical, Chemical & Earth Sciences; CC

ENGI--Current Contents, Engineering, Computing & Technology

Journal Subject Category: CHEMISTRY, PHYSICAL; MATERIALS SCIENCE

Abstract: Core-shell particles consisting of a polystyrene (PS) latex colloidal core and Fe(II) metallo-supramolecular polyelectrolyte (Fe(II)-MEPE)/poly(styrenesulfonate) (PSS) multilayer shells were fabricated by the consecutive assembly of Fe(II)-MEPE and PSS on PS particles. The layers were deposited under conditions where the Fe(II)-MEPE and PSS are oppositely charged, thereby utilizing electrostatic attractions for multilayer buildup. Formation of Fe(II)-MEPE/PSS multilayers on weakly cross-linked melamine-formaldehyde (MF) particles, followed by MF particle decomposition and removal, resulted in hollow Fe(II)-MEPE/PSS shells. The Fe(II)-MEPE/PSS multilayer shell on the colloidal particles and the Fe(II)-MEPE/PSS hollow shells were found to be stable, resisting decomposition upon exposure to acidic solutions or chelating agents. PS latices as small as 70 nm in diameter were also employed as templates for the successful fabrication of Fe(II)-MEPE/PSS and poly(allylamine hydrochloride)/PSS multilayer shells. These results demonstrate that our approach can be extended to colloidal templates with diameters less than 100 nm. This work represents a first study of structurally well-defined metallo-supramolecular polyelectrolyte-colloid assemblies combining the functional units from supramolecular chemistry with the restricted dimensionality of colloids.

Identifiers--KeyWord Plus(R): POLYSTYRENE LATEX-PARTICLES; COATED COLLOIDAL PARTICLES; SURFACE-CHARGE; SILICA; MICROCAPSULES; POLYMERIZATION; NANOPARTICLES; MICROSPHERES; ADSORPTION; HEMATITE

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5/9/14 (Item 6 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

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07923337 Genuine Article#: 224LH Number of References: 34

Title: Coexpression of CCR5 and IL-2 in human genital but not blood T cells: Implications for the ontogeny of the CCR5(+) Th1 phenotype

Author(s): Hladik F; Lentz G; Delpit E; McElroy A; McElrath MJ (REPRINT)

Corporate Source: FRED HUTCHINSON CANC RES CTR, PROGRAM INFECT DIS, DIV CLIN RES, 1100 FAIRVIEW AVE N, D3-100/SEATTLE/WA/98109 (REPRINT); FRED HUTCHINSON CANC RES CTR, PROGRAM INFECT DIS, DIV CLIN RES/SEATTLE/WA/98109; UNIV WASHINGTON, SCH MED, DEPT MED/SEATTLE/WA/98145; UNIV WASHINGTON, SCH MED, DEPT OBSTET & GYNECOL/SEATTLE/WA/98145

Journal: JOURNAL OF IMMUNOLOGY, 1999, V163, N4 (AUG 15), P2306-2313

ISSN: 0022-1767 Publication date: 19990815

Publisher: AMER ASSOC IMMUNOLOGISTS, 9650 ROCKVILLE PIKE, BETHESDA, MD 20814

Language: English Document Type: ARTICLE

Geographic Location: USA

Subfile: CC LIFE--Current Contents, Life Sciences

Journal Subject Category: IMMUNOLOGY

Abstract: Memory T cells that home to inflamed tissues typically express the beta-chemokine receptor CCR5 and exhibit a Th1 cytokine profile. The migration of these cells into the genital tract following antigenic exposure has particular relevance to acquisition of HIV-1 infection, because CCR5 functions as the coreceptor for most sexually transmitted HIV-1 strains. We recently established methodology to purify and

culture mononuclear cells from the female reproductive tract, and here we analyzed the phenotype, CCR5 expression, and cytokine production of cervicovaginal T cells in up to 16 donors. The proportion of mucosal T cells expressing CCR5 was markedly expanded as compared with peripheral blood (mean 88% vs 24% in 13 donors), but the receptor density on individual CCR5(+) T cells was only slightly increased (mean 5837 vs 4191 MEPE (molecules of equivalent PE) units in 6 of 7 donors). Intracellular costaining for IL-2, IFN-gamma, IL-4, and IL-5 revealed a Th1-type pattern in cervical T cells, with significantly higher percentages of IL-2- and IFN-gamma-producing T cells in the mucosa than in blood (mean 67% vs 29%). Coexpression of surface CCR5 with intracellular IL-2 and IFN-gamma was observed only among T cells in the mucosa, but not among these in circulation. Thus, we postulate that T cell homing to the genital mucosa leads to differentiation into the combined CCR5(+) Th1 phenotype. Moreover, the predominance of CCR5(+) Th1-type T cells in normal cervical mucosa provides targets accessible for the efficient transmission of macrophage-tropic HIV-1 variants in women following sexual exposure.

Identifiers--KeyWord Plus(R): IMMUNODEFICIENCY-VIRUS TYPE-1; CHEMOTACTIC RESPONSIVENESS; IMMUNE-RESPONSE; LYMPHOCYTES; CHEMOKINES; INFECTION; RECEPTOR; MIP-1-ALPHA; EXPRESSION; HIV-1

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5/9/15 (Item 7 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

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07844021 Genuine Article#: 215DP Number of References: 23

Title: Low dose axillary block by targeted injections of the terminal nerves

Author(s): KoscielniakNielsen ZJ (REPRINT) ; Nielsen PR; Sorensen T; Stenor M

Corporate Source: RIGSHOSP AN 4132,NATL UNIV HOSP, DEPT ANAESTHESIA & INTENS CARE/DK-2100 COPENHAGEN//DENMARK/ (REPRINT)

Journal: CANADIAN JOURNAL OF ANAESTHESIA-JOURNAL CANADIEN D ANESTHESIE,

1999, V46, N7 (JUL), P658-664
ISSN: 0832-610X Publication date: 19990700
Publisher: CANADIAN ANAESTHETISTS SOC INC, 1 EGLINTON AVE EAST, SUITE 208,
TORONTO ON M4P 3A1, CANADA
Language: English Document Type: ARTICLE
Geographic Location: DENMARK
Subfile: CC LIFE--Current Contents, Life Sciences; CC CLIN--Current
Contents, Clinical Medicine

Journal Subject Category: ANESTHESIOLOGY

Abstract: Purpose: To compare anesthetic time, success rate and adverse effects of axillary block by single or multiple injections of local anesthetic.

Methods: Two groups of patients were studied. In group T (targeted injections, n = 53) the four terminal nerves were located by electrical stimulation, and anesthetized with 5 ml mepivacaine 1% with epinephrine 5 µg/ml(-1) (MEPE). In group S (single injection, n = 53) 80 mL MEPE 1% were injected into the neurovascular sheath, transarterially or after eliciting paresthesia. Patchy blocks were supplemented after 30 min. The patient was ready for surgery when analgesia was present in all areas distal to the elbow.

Results: The block was complete at 11 min (6-15) in Group T and 7 min (5-13) in group S, $P < 0.01$. Supplementation was required in 46% in group S compared with 13% in group T: $P < 0.001$: anesthesia time was 32 min (19-52) in group T, and 39 min (16-58) in group S, $P = 0.02$. The average doses 6MEPE were 3.5 mg.kg(-1) (2.4-5.6) in T group and 12.0 mg.kg(-1) (8.9-16.4) in S group. However, 22% of patients in group T and 4% in group S reported tourniquet pain, $P = 0.02$. Paresthesia was elicited in 42% of patients in group S and 89% in group T, $P < 0.001$.

Conclusions: Small targeted injections of MEPE reduce total anesthetic time, give better spread of analgesia in the hand and forearm, and may be safer than a single large injection.

Identifiers--KeyWord Plus(R): BRACHIAL-PLEXUS ANESTHESIA; MEPIVACAINE 1-PERCENT; FUNCTIONAL-ANATOMY; HAND SURGERY; TRANSARTERIAL; ADRENALINE; SHEATH; ML; SINGLE

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5/9/16 (Item 8 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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07685013 Genuine Article#: 196CN Number of References: 41
Title: Inhibition of agonist-induced vasocontraction and impairment of endothelium-dependent vasorelaxation by extract of motorcycle exhaust particles in vitro

Author(s): Cheng YW; Kang JJ (REPRINT)
Corporate Source: NATL TAIWAN UNIV, COLL MED, INST TOXICOL, 1 JEN AI RD,
SECT 1/TAIPEI/TAIWAN/ (REPRINT); NATL TAIWAN UNIV, COLL MED, INST
TOXICOL/TAIPEI/TAIWAN/
Journal: JOURNAL OF TOXICOLOGY AND ENVIRONMENTAL HEALTH-PART A, 1999
, V57, N2 (MAY 28), P75-87
ISSN: 0098-4108 Publication date: 19990528
Publisher: TAYLOR & FRANCIS LTD, ONE GUNPOWDER SQUARE, LONDON EC4A 3DF,
ENGLAND

Language: English Document Type: ARTICLE

Geographic Location: TAIWAN

Subfile: CC LIFE--Current Contents, Life Sciences; CC AGRI--Current

Contents, Agriculture, Biology & Environmental Sciences

Journal Subject Category: TOXICOLOGY; ENVIRONMENTAL SCIENCES; PUBLIC,
ENVIRONMENTAL & OCCUPATIONAL HEALTH

Abstract: The in vitro effects of motorcycle exhaust particulate extract (MEPE) on blood vessels were studied in thoracic aorta isolated from Wistar rat. The MEPE relaxed the phenylephrine-precontracted aorta with an EC50 value of 0.05 +/- 0.004 mg/ml. This relaxing effect of MEPE persisted in endothelium-denuded aorta, suggesting that the relaxation induced by MEPE is endothelium-independent. The phenylephrine-induced vasocontraction and inositol 1,4,5-triphosphate formation were inhibited concentration dependently in aorta pretreated with MEPE. However, the high-K+-induced vasocontraction and the Ca2+ sensitivity of the contractile proteins were not significantly affected by MEPE. In addition to the inhibitory effects on agonist-induced contraction, the vasorelaxing effects both of acetylcholine and of sodium nitroprusside were impaired by MEPE. The inhibitory effects of MEPE on acetylcholine and sodium nitroprusside, but not phenylephrine, were reversed by cotreatment with superoxide dismutase. These results showed that the MEPE, added in vitro, inhibited the phenylephrine-induced, but not depolarization-induced, vasocontraction of aorta. The MEPE also impaired the vasorelaxation induced by acetylcholine in a superoxide anion-dependent manner.

Identifiers--KeyWord Plus(R): POLYCYCLIC AROMATIC-HYDROCARBONS;
NITRIC-OXIDE; PARTICULATE MATTER; ACUTE TOXICITY; GUINEA-PIGS; DIESEL;
DEP; SUPEROXIDE; RELAXATION; EMISSIONS

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5/9/17 (Item 9 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

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07233450 Genuine Article#: 139MK Number of References: 9

Title: Activation parameters of the photo-EMF decay from

N,N'-dimethylperylene-tetracarboxylic-bisimide pigment

Author(s): Damm C (REPRINT); Muller FW; Israel G

Corporate Source: UNIV HALLE WITTENBERG, INST ORGAN CHEM, GEUSAER

STR/D-06217 MERSEBURG//GERMANY/ (REPRINT)

Journal: JOURNAL OF INFORMATION RECORDING, 1998, V24, N5-6, P415-425

ISSN: 1025-6008 Publication date: 19980000

Publisher: GORDON BREACH SCI PUBL LTD, C/O STBS LTD, PO BOX 90, READING RG1

8JL, BERKS, ENGLAND

Language: English Document Type: ARTICLE

Geographic Location: GERMANY

Subfile: CC ENGI--Current Contents, Engineering, Computing & Technology

Journal Subject Category: PHOTOGRAPHIC TECHNOLOGY; MATERIALS SCIENCE

Abstract: Simple Photo-E.M.F. decay curves and Photo-E.M.F.-signals with a

sign reversal may be described by the same parameter set $U-1(0)$;

$U-2(0)$; $k(1)$; $k(2)$ of a biexponential rate law [1], see equation (1),

where 1 and 2 can be two independent superimposing partial

Photo-E.M.F.s. The first order decay constants of both partial

Photo-E.M.F.s $k(1)$ and $k(2)$ reflect the rate of the charge carrier

transport and recombination.

The temperature may mainly influence the charge carrier transport.

Temperature dependent measurements of $k(1)$ and $k(2)$ of a fine dispersed N,N'-Dimethylperylene-tetracarboxylic-bisimide (MePe) in polyvinyl butyral (PVB) layer lead to the corresponding ARRHENIUS activation energies E-A1 and E-A2 in the range from -240 to +250 meV. Positive values for E-A1 and E-A2 were found for the MePe-PVB layer up to $T = 20$ degrees C ($\lambda(\text{exc}) = 625$ nm) and $T = 35$ degrees C ($\lambda(\text{exc}) = 580$ nm).

Above these temperatures E-A1 remains positive, but E-A2 becomes negatively. This behaviour is only partly in agreement with the simple MOTT-theory [2]. According to the trap theory of MOTT [2] in organic dye pigments the charge carrier transport occurs by hopping processes from a trap to another one. The promotion of charge carriers from traps into the bands needs an activation energy. Therefore the ARRHENIUS activation energies of $k(1)$ and $k(2)$ should correspond to an averaged depth of traps. The activation energies of $k(1)$ and $k(2)$ measured from fine dispersed MePe embedded in PVB are in the meV range.

Therefore one can say, that the charge carrier transport takes place by hopping processes from shallow traps.

Descriptors--Author Keywords: photo-EMF; kinetics; trap theory (MOTT);

ARRHENIUS activation energy; organic dye pigments

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SIMON J, SEMICONDUCTORS PHOTO

5/9/18 (Item 10 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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06262259 Genuine Article#: YF224 Number of References: 44
Title: Measurement problems and kinetic treatment of photo-EMF curves
Author(s): Israel G (REPRINT) ; Muller FW; Damm C; Harenburg J
Corporate Source: UNIV HALLE WITTENBERG, INST ORGAN CHEM, GEUSAER
STR/D-06217 MERSEBURG//GERMANY/ (REPRINT)
Journal: JOURNAL OF INFORMATION RECORDING, 1997, V23, N6, P559-584
ISSN: 1025-6008 Publication date: 19970000
Publisher: GORDON BREACH SCI PUBL LTD, C/O STBS LTD, PO BOX 90, READING,
BERKS, ENGLAND RG1 8JL
Language: English Document Type: ARTICLE
Geographic Location: GERMANY
Subfile: CC ENGI--Current Contents, Engineering, Computing & Technology
Journal Subject Category: PHOTOGRAPHIC TECHNOLOGY; MATERIALS SCIENCE
Abstract: Signal/noise ratio and reproducibility of laser flash generated
Photo-ElectroMotive-Force (PHOTO-EMF) curves were improved by
acquisition of several signals. This gives the opportunity of an exact
kinetic treatment of the time resolved PHOTO-EMF.

A biexponential rate law $U(t) = U(1) \exp(-k(1)t) + U(2) \exp(-k(2)t)$ allows the description of all kinds of experimental signals. $U-1(0)$ and $U-1(0)$ were suggested as two hypothetical partial PHOTO-EMF in the beginning, which can have equal or opposite signs. First order rate constants $k(1)$ and $k(2)$ correspond to the two partial decay processes. In this way a very good fit will be reached between measured and calculated curves even in these cases, where the sign of the signal changes within the decay process (crossing point).

Fine dispersed copper phthalocyanine (CuPc) and N,N'-dimethylperylene-tetracarboxylic bisimide (MePe) pigments in polyvinyl butyral layers as well as photographic silver halide emulsions were used as examples for p- and n-type photoconductors in order to proof the capability of the kinetic model.

The dependence of the PHOTO-EMF parameters on experimental conditions such as flash intensity, film thickness, size of grains, and optical absorbance of the samples were investigated.

Descriptors--Author Keywords: Photo-EMF Dember-effect ; kinetics ; organic pigments ; silver halides ; dyes

Identifiers--KeyWord Plus(R): PHOTOCHARGE DECAY KINETICS; DIFFUSION BEHAVIOR; CHARGE-CARRIERS; THIN-FILMS; DYE

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5/9/19 (Item 11 from file: 34)
 DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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01330236 Genuine Article#: GP755 Number of References: 14
 Title: AN ESTIMATION OF THE ELECTRIC-FIELD IN THE MAGNETOTAIL CURRENT SHEET
 USING THE OBSERVED ENERGETIC ION BULK FLOW
 Author(s): LI XL; SPEISER TW
 Corporate Source: UNIV COLORADO,DEPT ASTROPHYS PLANETARY & ATMOSPHER
 SCI/BOULDER//CO/80309; NOAA,SEL/BOULDER//CO/80309
 Journal: GEOPHYSICAL RESEARCH LETTERS, 1991, V18, N11, P1967-1970
 Language: ENGLISH Document Type: ARTICLE
 Geographic Location: USA
 Subfile: SciSearch; CC PHYS--Current Contents, Physical, Chemical & Earth
 Sciences
 Journal Subject Category: GEOSCIENCES
 Abstract: It is important to know the electric field in the tail current
 sheet in order to understand how particles behave and how much energy
 is being dissipated. The electric field is also a measurement of the
 reconnection rate during substorms. For the CDAW-6 substorm period of
 March 22, 1979, we used the ion data from the medium energy particles
 experiment (MEPE) on the ISEE-1 satellite, and studied nine
 measurements of the 3D distribution function centered on the center of
 the current sheet. The measured distribution function was then
 integrated to obtain the average of bulk flow velocity in the
 geocentric solar ecliptic (GSE) frame. This bulk flow velocity was
 then broken up into its components perpendicular and parallel to the
 magnetic field for the nine cases. It was further assumed that the
 perpendicular component was due, in part, to an energy dependent drift
 and to an energy independent electric field drift. Using the bulk flow
 velocities from any two energy channels we can separate out the
 electric and energy dependent drifts and thus obtain electric field and
 energy dependent components. The two lowest energy channels (34.3 keV
 and 54.9 keV) give the main results, and the 80.4 keV and 118.8 keV
 channels are used as a cross check. We find that $E(x)$ fluctuates
 approximately ± 5 mV/m, and $E(y)$ ± 10 mV/m, in reasonable agreement
 with measurements by the electric field instrument [Pedersen et al.,
 1985], with most of the fluctuation presumably due to the motion of the
 current sheet. Using current sheet oscillation theory and the central
 current sheet data points, we can estimate $E(y)$ in the frame of the
 current sheet and find a positive average $E(y)$ with a magnitude of
 almost-equal-to 0.1 mV/m, which is also consistent with that expected
 for reconnection in this substorm time period. The $E(z)$ component has
 a remarkable linear correlation with $B(x)$, with a correlation
 coefficient of 0.91. Assuming $B(x)$ varies linearly with z , a positive
 ion density of $3.14 \times 10^{-20} \text{ d(R(e)) Coulombs/m}^3$ is implied. Such a

positive space charge near the current sheet center is expected theoretically.

Identifiers--KeyWords Plus: MARCH 22; CDAW-6; SUBSTORM

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5/9/20 (Item 1 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

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10852067 20399567 PMID: 10945470

MEPE , a new gene expressed in bone marrow and tumors causing osteomalacia.

Rowe P S; de Zoysa P A; Dong R; Wang H R; White K E; Econs M J; Oudet C L
Centre for Molecular Osteo-Renal Research, Department of Biochemistry and
Molecular Biology, Royal Free and University College Medical School,
Hampstead, London, United Kingdom. p.rowe@rfc.ucl.ac.uk

Genomics (UNITED STATES) Jul 1 2000, 67 (1) p54-68, ISSN

0888-7543 Journal Code: 8800135

Contract/Grant No.: AR08550; AR; NIAMS; K24AR02095; AR; NIAMS; R01AR4228;
AR; NIAMS

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Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

Oncogenic hypophosphatemic osteomalacia (OHO) is characterized by a renal phosphate leak, hypophosphatemia, low-serum calcitriol (1,25-vitamin-D3), and abnormalities in skeletal mineralization. Resection of OHO tumors results in remission of the symptoms, and there is evidence that a circulating phosphaturic factor plays a role in the bone disease. This paper describes the characterization and cloning of a gene that is a candidate for the tumor-secreted phosphaturic factor. This new gene has been named MEPE (matrix extracellular phosphoglycoprotein) and has major similarities to a group of bone-tooth mineral matrix phospho-glycoproteins (osteopontin (OPN; HGMW-approved symbol SPP1), dentin sialo phosphoprotein (DSPP), dentin matrix protein 1 (DMP1), bone sialoprotein II (IBSP), and bone morphogenetic proteins (BMP). All the proteins including MEPE contain RGD sequence motifs that are proposed to be essential for integrin-receptor interactions. Of further interest is the finding that MEPE, OPN, DSPP, DMP1, IBSP, and BMP3 all map to a defined region in chromosome 4q. Refined mapping localizes MEPE to 4q21.1 between ESTs D4S2785 (WI-6336) and D4S2844 (WI-3770). MEPE is 525 residues in length with a short N-terminal signal peptide. High-level expression of MEPE mRNA occurred in all four OHO tumors screened. Three of 11 non-OHO tumors screened contained trace levels of MEPE expression (detected only after RT-PCR and Southern 32P analysis). Normal tissue expression was found in bone marrow and brain with very-low-level expression found in lung, kidney, and human placenta. Evidence is also presented for the tumor secretion of clusterin (HGMW-approved symbol CLU) and its possible role as a cytotoxic factor in one of the OHO patients described.

Tags: Case Report; Female; Human; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Descriptors: *Bone Marrow--metabolism--ME; *Bone Neoplasms--genetics--GE; *Glycoproteins--genetics--GE; *Osteomalacia--genetics--GE; Adult; Aged;

Amino Acid Motifs; Amino Acid Sequence; Blotting, Northern; Blotting, Southern; Blotting, Western; Bone Neoplasms--diagnosis--DI; Bone Neoplasms--pathology--PA; Brain--pathology--PA; Chromosomes, Human, Pair 4; Cloning, Molecular; Computer Simulation; Culture Media, Conditioned; DNA Primers--chemistry--CH; Diagnosis, Differential; Gene Library; Glycoproteins--metabolism--ME; Hemangiopericytoma--complications--CO; Hemangiopericytoma--genetics--GE; Hypophosphatemia--genetics--GE; Molecular Sequence Data; Molecular Structure; Osteomalacia--diagnosis--DI; Osteomalacia--pathology--PA; Peptides--chemistry--CH; Phosphoproteins--genetics--GE; Physical Chromosome Mapping; Polymerase Chain Reaction; RNA, Messenger--analysis--AN; Reverse Transcriptase Polymerase Chain Reaction; Sequence Alignment; Tissue Distribution; Tumor Cells, Cultured
 CAS Registry No.: 0 (Culture Media, Conditioned); 0 (DNA Primers); 0 (Glycoproteins); 0 (Peptides); 0 (Phosphoproteins); 0 (RNA, Messenger); 0 (matrix extracellular phosphoglycoprotein)
 Record Date Created: 20001108

5/9/21 (Item 2 from file: 155)
 DIALOG(R)File 155:MEDLINE(R)
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10376255 99369591 PMID: 10442961

Low dose axillary block by targeted injections of the terminal nerves.
 Koscielniak-Nielsen Z J; Rotboll Nielsen P; Sorensen T; Stenor M
 Department of Anaesthesia and Intensive Care, National University
 Hospital, Rigshospitalet AN 4132, Copenhagen, Denmark. zjkn@rh.dk
 Canadian journal of anaesthesia = Journal canadien d'anesthesie (CANADA)
 Jul 1999, 46 (7) p658-64, ISSN 0832-610X Journal Code:
 8701709
 Comment in Can J Anaesth. 2000 Feb;47(2) 192-3; Comment in PMID 10674519
 Document type: Clinical Trial; Journal Article; Randomized Controlled
 Trial

Languages: ENGLISH
 Main Citation Owner: NLM
 Record type: Completed
 Subfile: INDEX MEDICUS

PURPOSE: To compare anesthetic time, success rate and adverse effects of axillary block by single or multiple injections of local anesthetic.
 METHODS: Two groups of patients were studied. In group T (targeted injections, n = 53) the four terminal nerves were located by electrical stimulation, and anesthetized with 5 ml mepivacaine 1% with epinephrine 5 microg x ml(-1) (MEPE). In group S (single injection, n = 53) 80 mL MEPE 1% were injected into the neurovascular sheath, transarterially or after eliciting paresthesia. Patchy blocks were supplemented after 30 min. The patient was ready for surgery when analgesia was present in all areas distal to the elbow. RESULTS: The block was complete at 11 min (6-15) in Group T and 7 min (5-13) in group S, P<0.01. Supplementation was required in 46% in group S compared with 13% in group T P<0.001: anesthesia time was 32 min (19-52) in group T, and 39 min (16-58) in group S, P = 0.02. The average doses of MEPE were 3.5 mg x kg(-1) (2.4-5.6) in T group and 12.0 mg x kg(-1) (8.9-16.4), in S group. However, 22% of patients in group T and 4% in group S reported tourniquet pain, P = 0.02. Paresthesia was elicited in 42% of patients in group S and 8% in group T, P<0.001. CONCLUSIONS: Small targeted injections of MEPE reduce total anesthetic time, give better spread of analgesia in the hand and forearm, and may be safer than a single large injection.

Tags: Female; Human; Male
 Descriptors: *Anesthetics, Local--administration and dosage--AD; *Epinephrine--administration and dosage--AD; *Mepivacaine--administration and dosage--AD; *Nerve Block; Adolescence; Adult; Aged; Aged, 80 and over; Analgesia; Double-Blind Method; Middle Age; Time Factors
 CAS Registry No.: 0 (Anesthetics, Local); 51-43-4 (Epinephrine); 96-88-8 (Mepivacaine)
 Record Date Created: 19990910

5/9/22 (Item 3 from file: 155)
 DIALOG(R)File 155:MEDLINE(R)
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10373406 99370043 PMID: 10438976

Coexpression of CCR5 and IL-2 in human genital but not blood T cells: implications for the ontogeny of the CCR5+ Th1 phenotype.

Hladik F; Lentz G; Delpit E; McElroy A; McElrath M J

Clinical Research Division, Fred Hutchinson Cancer Research Center, Seattle, WA 98109, USA.

Journal of immunology (Baltimore, Md. : 1950) (UNITED STATES) Aug 15

1999, 163 (4) p2306-13, ISSN 0022-1767 Journal Code: 2985117R

Contract/Grant No.: R37 AI36505; AI; NIAID; ROI AI38518; AI; NIAID

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: AIM; INDEX MEDICUS; AIDS/HIV

Memory T cells that home to inflamed tissues typically express the beta-chemokine receptor CCR5 and exhibit a Th1 cytokine profile. The migration of these cells into the genital tract following antigenic exposure has particular relevance to acquisition of HIV-1 infection, because CCR5 functions as the coreceptor for most sexually transmitted HIV-1 strains. We recently established methodology to purify and culture mononuclear cells from the female reproductive tract, and here we analyzed the phenotype, CCR5 expression, and cytokine production of cervicovaginal T cells in up to 16 donors. The proportion of mucosal T cells expressing CCR5 was markedly expanded as compared with peripheral blood (mean 88% vs 24% in 13 donors), but the receptor density on individual CCR5+ T cells was only slightly increased (mean 5837 vs 4191 MEPE (molecules of equivalent PE) units in 6 of 7 donors). Intracellular costaining for IL-2, IFN-gamma, IL-4, and IL-5 revealed a Th1-type pattern in cervical T cells, with significantly higher percentages of IL-2- and IFN-gamma-producing T cells in the mucosa than in blood (mean 67% vs 29%). Coexpression of surface CCR5 with intracellular IL-2 and IFN-gamma was observed only among T cells in the mucosa, but not among those in circulation. Thus, we postulate that T cell homing to the genital mucosa leads to differentiation into the combined CCR5+ Th1 phenotype. Moreover, the predominance of CCR5+ Th1-type T cells in normal cervical mucosa provides targets accessible for the efficient transmission of macrophage-tropic HIV-1 variants in women following sexual exposure.

Tags: Comparative Study; Female; Human; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Descriptors: *Cervix Uteri--metabolism--ME; *Interleukin-2--biosynthesis--BI; *Receptors, CCR5--biosynthesis--BI; *Th1 Cells--metabolism--ME; *Vagina--metabolism--ME; Antigens, CD--biosynthesis--BI; Antigens, CD--blood--BL; Antigens, CD45--biosynthesis--BI; Antigens, CD45--blood--BL; Antigens, Differentiation, T-Lymphocyte--biosynthesis--BI; Antigens, Differentiation, T-Lymphocyte--blood--BL; Cell Separation; Cervix Uteri--cytology--CY; Immunophenotyping; Interferon Type II--biosynthesis--BI; Interferon Type II--blood--BL; Interleukin-2--blood--BL; Mucous Membrane--cytology--CY; Mucous Membrane--metabolism--ME; Receptors, Antigen, T-Cell, alpha-beta--biosynthesis--BI; Receptors, Antigen, T-Cell, alpha-beta--blood--BL; Receptors, CCR5--blood--BL; Receptors, Lymphocyte Homing--biosynthesis--BI; Receptors, Lymphocyte Homing--blood--BL; T-Lymphocyte Subsets--immunology--IM; T-Lymphocyte Subsets--metabolism--ME; Vagina--cytology--CY

CAS Registry No.: 0 (Antigens, CD); 0 (Antigens, CD45); 0 (Antigens, Differentiation, T-Lymphocyte); 0 (Interleukin-2); 0 (Leu-23 antigen); 0 (Receptors, Antigen, T-Cell, alpha-beta); 0 (Receptors, CCR5); 0 (Receptors, Lymphocyte Homing); 82115-62-6 (Interferon Type II)

Record Date Created: 19990909

5/9/23 (Item 4 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

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10300295 99274022 PMID: 10344225

Inhibition of agonist-induced vasoconstriction and impairment of endothelium-dependent vasorelaxation by extract of motorcycle exhaust particles in vitro.

Cheng Y W; Kang J J

Institute of Toxicology, College of Medicine, National Taiwan University,
Taipei, Republic of China.
Journal of toxicology and environmental health. Part A (UNITED STATES)
May 28 1999, 57. (2) p75-87, ISSN 1528-7394 Journal Code:
100960995

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

The in vitro effects of motorcycle exhaust particulate extract (MEPE) on blood vessels were studied in thoracic aorta isolated from Wistar rat. The MEPE relaxed the phenylephrine-precontracted aorta with an EC50 value of 0.05 +/- 0.004 mg/ml. This relaxing effect of MEPE persisted in endothelium-denuded aorta, suggesting that the relaxation induced by MEPE is endothelium-independent. The phenylephrine-induced vasoconstriction and inositol 1,4,5-triphosphate formation were inhibited concentration dependently in aorta pretreated with MEPE. However, the high-K+-induced vasoconstriction and the Ca2+ sensitivity of the contractile proteins were not significantly affected by MEPE. In addition to the inhibitory effects on agonist-induced contraction, the vasorelaxing effects both of acetylcholine and of sodium nitroprusside were impaired by MEPE. The inhibitory effects of MEPE on acetylcholine and sodium nitroprusside, but not phenylephrine, were reversed by cotreatment with superoxide dismutase. These results showed that the MEPE, added in vitro, inhibited the phenylephrine-induced, but not depolarization-induced, vasoconstriction of aorta. The MEPE also impaired the vasorelaxation induced by acetylcholine in a superoxide anion-dependent manner.

Tags: Animal; In Vitro; Male; Support, Non-U.S. Gov't

Descriptors: *Endothelium, Vascular--drug effects--DE; *Motorcycles; *Vasoconstriction--drug effects--DE; *Vasodilation--drug effects--DE; *Vehicle Emissions--toxicity--TO; Acetylcholine--pharmacology--PD; Aorta, Thoracic--drug effects--DE; Calcium--metabolism--ME; Contractile Proteins--metabolism--ME; Endothelium, Vascular--metabolism--ME; Inositol 1,4,5-Trisphosphate--metabolism--ME; Rats; Rats, Wistar; Superoxides--metabolism--ME

CAS Registry No.: 0 (Contractile Proteins); 0 (Vehicle Emissions); 11062-77-4 (Superoxides); 51-84-3 (Acetylcholine); 7440-70-2 (Calcium); 85166-31-0 (Inositol 1,4,5-Trisphosphate)

Record Date Created: 19990607

5/9/24 (Item 5 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

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04568671 84255865 PMID: 6742926

Preliminary schistosomiasis survey in the lower Volta River below Akosombo Dam, Ghana.

Wen S T; Chu K Y

Annals of tropical medicine and parasitology (ENGLAND) Apr 1984,

78 (2) p129-33, ISSN 0003-4983 Journal Code: 2985178R

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

Snail surveys were carried out in Kpong Lake, in southern Ghana, and along the lower Volta River below the lake. *Bulinus globosus* and *Biomphalaria pfeifferi* were abundant in the Kpong Lake and *B. truncatus* and *Biomphalaria pfeifferi*, especially the latter, were widespread below the lake. Urine surveys among primary school children at eight localities along the lower Volta showed *Schistosoma haematobium* prevalence rates of 38.8-96.2%. At Bator and Mepe, where records for an earlier survey were available for comparison, the present survey showed more than a doubling in prevalence rate in ten years: at Bator, from 27.1% in 1971-72 to 74.6% in 1981; at Mepe the corresponding figures were 36.4 and 88.0%. In Ghana infection with *S. mansoni* is less common than with *S. haematobium* and the known foci of *S. mansoni* transmission are few and widely scattered. In the

present survey the disease is first reported along the lower Volta at Bator , Mepe , Adidome and Tefle , with prevalence rates ranging from 6.7% at Bator to 52.4% at Tefle . This survey has added an important focus of S. mansoni infection to those already known.

Tags: Animal; Human

Descriptors: *Schistosomiasis--epidemiology--EP; Adolescence; Biomphalaria--physiology--PH; Bulinus--physiology--PH; Child; Demography; Ghana; Schistosoma haematobium; Schistosoma mansoni; Schistosomiasis--transmission--TM

Record Date Created: 19840801

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S63322082 PY<=2000DS

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S2	7	"MATRIX EXTRACELLULAR PHOSPHOGLYCOPROTEIN"
S3	0	"MATRIX EXTRACELLULAR PHOSPHOGLYCOPROTEIN"DS
S4	33322082	PY<=2000
S5	24	S1 AND S4
S6	33322082	PY<=2000DS

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Set	Items	Description
S1	46	MEPE
S2	7	"MATRIX EXTRACELLULAR PHOSPHOGLYCOPROTEIN"
S3	0	"MATRIX EXTRACELLULAR PHOSPHOGLYCOPROTEIN"DS
S4	33322082	PY<=2000
S5	24	S1 AND S4
S6	33322082	PY<=2000DS

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Set	Items	Description
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S4	33322082	PY<=2000
S5	24	S1 AND S4
S6	33322082	PY<=2000DS

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 E22 56 AU=YONEDA TOSHIYUKI
 E23 1 AU=YONEDA TOYOAKI
 E24 2 AU=YONEDA TSUGUTAKE

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? s e3 or e4 or e22

911 AU=YONEDA T
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 56 AU=YONEDA TOSHIYUKI

S7 968 AU='YONEDA T' OR AU='YONEDA T.' OR AU='YONEDA TOSHIYUKI'

? e au=nomizu m

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E4	97	AU=NOMIZU MOTOYOSHI
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E9	103	AU=NOMIZU T
E10	23	AU=NOMIZU TADASHI
E11	6	AU=NOMIZU TSUTOMU
E12	1	AU=NOMM AVO

Enter P or PAGE for more

? s e3 or e4 or e5

256 AU=NOMIZU M
 97 AU=NOMIZU MOTOYOSHI
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S8 354 AU='NOMIZU M' OR AU='NOMIZU MOTOYOSHI' OR AU='NOMIZU MOTOYSOHI'

? e au=kumagai y

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Enter P or PAGE for more

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E23	41	AU=KUMAGAI YUJI
E24	5	AU=KUMAGAI YUKIE

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669 AU=KUMAGAI Y
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 1 AU=KUMAGAI Y-I
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 S9 675 AU='KUMAGAI Y' OR AU='KUMAGAI Y.' OR AU='KUMAGAI Y-I' OR
 AU='KUMAGAI YOSHINARI' OR AU='KUMAGAI YOSHINORI'
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 Set Items Description
 S1 46 MEPE
 S2 7 "MATRIX EXTRACELLULAR PHOSPHOGLYCOPROTEIN"
 S3 0 "MATRIX EXTRACELLULAR PHOSPHOGLYCOPROTEIN"DS
 S4 33322082 PY<=2000
 S5 24 S1 AND S4
 S6 33322082 PY<=2000DS
 S7 968 AU='YONEDA T' OR AU='YONEDA T.' OR AU='YONEDA TOSHIYUKI'
 S8 354 AU='NOMIZU M' OR AU='NOMIZU MOTOYOSHI' OR AU='NOMIZU MOTOY-
 SOHI'
 S9 675 AU='KUMAGAI Y' OR AU='KUMAGAI Y.' OR AU='KUMAGAI Y-I' OR A-
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 354 S8
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 7591 OSTEOMALACIA
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 S11 5 S10 AND (PHOSPOHPEPTIDE OR RGD OR "T D L Q E R G
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 S12 286 S10 AND BONE?
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 ? type s11/full/all

11/9/1 (Item 1 from file: 5)
 DIALOG(R)File 5:Biosis Previews(R)
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09531885 BIOSIS NO.: 199497540255

The short amino acid sequence Pro-His-Ser-Arg-Asn in human fibronectin enhances cell-adhesive function.

AUTHOR: Aota Shin-Ichi; Nomizu Motoyoshi; Yamada Kenneth M(a

AUTHOR ADDRESS: (a)Lab. Developmental Biol., Building 30, Room 421, NIDR, NIH, Bethesda, MD 20892**USA

JOURNAL: Journal of Biological Chemistry 269 (40):p24756-24761 1994

ISSN: 0021-9258

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: Synergistic sites in the central cell-adhesive domain of
 fibronectin (FN) substantially enhance cell adhesion mediated by the
 alpha-5-beta-1 integrin receptor for fibronectin. We characterized a
 critical minimal sequence needed for synergistic activity using
 site-directed mutagenesis and homology scanning using intramolecular

chimeras. The minimal cell-binding domain of FN consisting of the 9th and 10th type III FN repeat was expressed in an Escherichia coli expression system. This protein retained high biological activity when swayed using a competitive inhibition assay for FN-mediated adhesion of baby hamster kidney or HT-1080 cells. In contrast, a construct consisting of the 8th and 10th repeat displayed very low biological activity. By replacing various portions of the 8th repeat with homologous 9th repeat segments, we mapped the synergistic region to the center of the 9th repeat. When a very short peptide sequence, Pro-His-Ser-Arg-Asn (PHSRN), from the 9th repeat was substituted for the homologous pentapeptide site in the 8th repeat sequence, the recombinant protein showed markedly enhanced activity. Further mutagenesis analysis suggested that the arginine residue of this pentapeptide sequence is important for function. We also identified a weaker adjacent synergy region other than the PHSRN region. Epitope mapping of an anti-FN monoclonal antibody that inhibit a FN-mediated adhesion identified the same critical regions. A synthetic peptide containing the PHSRN sequence showed neither competitive inhibitory activity in solution nor synergy with a soluble RGD-containing peptide. However, when the same synthetic peptide was positioned via a covalent bond at the corresponding site of the normally inactive 8th repeat, it mediated an enhancement of adhesive activity. These results identify a pentapeptide site that synergistically enhances the cell-adhesive activity of the FN RGD sequence.

DESCRIPTORS:

MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Cell Biology;

Membranes (Cell Biology)

BIOSYSTEMATIC NAMES: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia

ORGANISMS: Hominidae (Hominidae)

BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): animals; chordates; humans; mammals; primates; vertebrates

MOLECULAR SEQUENCE DATABANK NUMBER: molecular sequence data

MISCELLANEOUS TERMS: PROLINE-HISTIDINE-SERINE-ARGININE-ASPARAGINE SEQUENCE; RECEPTOR

CONCEPT CODES:

02508 Cytology and Cytochemistry-Human

10064 Biochemical Studies-Proteins, Peptides and Amino Acids

10506 Biophysics-Molecular Properties and Macromolecules

10508 Biophysics-Membrane Phenomena

BIOSYSTEMATIC CODES:

86215 Hominidae

11/9/2 (Item 1 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

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04545298 Genuine Article#: TR391 Number of References: 58

Title: CONFORMATIONAL-ANALYSIS OF CYCLIC HEXAPEPTIDES DESIGNED AS CONSTRAINED LIGANDS FOR THE SH2 DOMAIN OF THE P85 SUBUNIT OF PHOSPHATIDYLINOSITOL-3-OH KINASE

Author(s): BARCHI JJ; NOMIZU M; OTAKA A; ROLLER PP; BURKE TR

Corporate Source: NCI,DIV CANC TREATMENT,MED CHEM LAB,DEV THERAPEUT PROGRAM/BETHESDA/MD/20892

Journal: BIOPOLYMERS, 1996, V38, N2 (FEB), P191-208

ISSN: 0006-3525

Language: ENGLISH Document Type: ARTICLE

Geographic Location: USA

Subfile: SciSearch; CC LIFE--Current Contents, Life Sciences

Journal Subject Category: BIOCHEMISTRY & MOLECULAR BIOLOGY

Abstract: The structures of the cyclic hexapeptide cycle

(-Gly-Tyr-Val-Pro-Met-Leu-) (1) and its phosphotyrosyl (pTyr)

derivative cycle [-Gly-Tyr(PO3H2)-Val-Pro-Met-Leu-] (2), designed as

constrained models of a sequence that interacts with the src homology,

2 (SH2) region of the p85 subunit of phosphatidylinositol-3-OH kinase

(PI-3 kinase), were studied in methanol/water solutions by 500 MHz nmr

spectroscopy. Compound 1 was found to exist as a 2:1 mixture of isomers

about the Val-Pro bond (trans and cis prolyl) between 292-330 K in 75%

CD3O(D,H)/(D,H)(2)O solutions. A third species of undetermined

undetermined structure (etc. 5%) was also observed Compound 2, a model of phosphorylated peptide ligand that binds to the PI-3 kinase SH2 domain, exhibited similar conformational isomerism. When either compound was dissolved in pure solvent [i.e., 100% CD₃O(H,D) or (H,D)(²O)] the ratio of cis to trans isomers was ca 1:1. A battery of one- and two-dimensional nmr experiments at different temperatures and solvent compositions allowed a complete assignment of both the cis and trans forms of 1 and indicated the trans compound to be the major isomer. The spectral properties of the phosphorylated derivative 2 paralleled those of 1, indicating like conformations for the two compounds. Analysis of rotating frame Overhauser spectroscopy data, coupling constants, amide proton temperature dependence and amide proton exchange rates generated a set of constraints that were employed in energy minimization and molecular dynamics calculations using the CHARMM force field. The trans isomer exists with the tyrosine and C-terminal Tyr(+3) (Met) residues at opposite corners of the 18-membered ring separated by a distance of 16-18 Angstrom, in contrast with the cis isomer where the side chains of these residues are much closer in space (7-14 Angstrom). It was previously shown that the pTyr and the third amino acid C-terminal to this residue are the critical recognition elements for pTyr-peptide binding to the PI-3 kinase SH2 domain. Such cyclic structures may offer appropriate scaffolding for positioning important amino acid side chains of pTyr containing peptides as a means of increasing their binding affinities to SH2 domains, and in trim provide a conceptual approach toward the design of SH2 domain directed peptidomimetics. (C) 1996 John Wiley & Sons, Inc.

Identifiers--KeyWords Plus: AFFINITY PHOSPHOTYROSYL PEPTIDE; RESTRAINED MOLECULAR-DYNAMICS; SRC HOMOLOGY-2 DOMAIN; SOLID-PHASE SYNTHESIS; NMR-SPECTROSCOPY; CROSS-RELAXATION; ROTATING-FRAME; BIOLOGICAL-ACTIVITY; 2-DIMENSIONAL NMR; RGD PEPTIDES

Research Fronts: 94-0092 012 (N-15 NMR ASSIGNMENTS; PROTEIN MOTIONS; BOVINE PANCREATIC TRYPSIN-INHIBITOR; DNA-BINDING DOMAIN)
94-1415 003 (SH3 DOMAINS OF GRB2; RAS SIGNALING PATHWAY; ACTIVATED HUMAN EPIDERMAL GROWTH-FACTOR RECEPTORS; PHOSPHATIDYLINOSITOL 3-KINASE; SOS PROLINE-RICH MOTIFS)

94-2035 001 (HETERONUCLEAR MULTIDIMENSIONAL NMR; 2-DIMENSIONAL NUCLEAR-MAGNETIC-RESONANCE SPECTRA OF PARAMAGNETIC SYSTEMS; SEQUENCE-SPECIFIC ASSIGNMENTS)

94-2350 001 (MOLECULAR-DYNAMICS SIMULATION; LIQUID WATER; THERMODYNAMIC RESPONSE OF A GENERALIZED REACTION FIELD MODEL)

94-5082 001 (LINEAR PEPTIDE; REVERSE TURN CONFORMATION; REFINED CRYSTAL-STRUCTURE; MIRROR-IMAGE FORMS)

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11/9/3 (Item 2 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

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03598901 Genuine Article#: PQ490 Number of References: 22

Title: THE SHORT AMINO-ACID-SEQUENCE PRO-HIS-SER-ARG-ASN IN HUMAN
 FIBRONECTIN ENHANCES CELL-ADHESIVE FUNCTION

Author(s): AOTA S; NOMIZU M; YAMADA KM

Corporate Source: NIDR,DEV BIOL LAB,BLDG 30,RM 421/BETHESDA/MD/20892;
 NIDR,DEV BIOL LAB/BETHESDA/MD/20892

Journal: JOURNAL OF BIOLOGICAL CHEMISTRY, 1994, V269, N40 (OCT 7), P
 24756-24761

ISSN: 0021-9258

Language: ENGLISH Document Type: ARTICLE

Geographic Location: USA

Subfile: SciSearch; CC LIFE--Current Contents, Life Sciences

Journal Subject Category: BIOCHEMISTRY & MOLECULAR BIOLOGY

Abstract: Synergistic sites in the central cell-adhesive domain of
 fibronectin (FN) substantially enhance cell adhesion mediated by the
 alpha(5) beta(1) integrin receptor for fibronectin. We characterized a
 critical minimal sequence needed for synergistic activity using site
 directed mutagenesis and homology scanning using intramolecular
 chimeras. The minimal cell-binding domain of FN consisting of the 9th
 and 10th type III FN repeat was expressed in an Escherichia coli
 expression system. This protein retained high biological activity when
 assayed using a competitive inhibition assay for FN-mediated adhesion
 of baby hamster kidney or HT-1080 cells. In contrast, a construct
 consisting of the 8th and 10th repeat displayed very low biological
 activity. By replacing various portions of the 8th repeat with
 homologous 9th repeat segments, we mapped the synergistic region to the
 center of the 9th repeat. When a very short peptide sequence,
 Pro-His-Ser-Arg-Asn (PHSRN), from the 9th repeat was substituted for
 the homologous pentapeptide site in the 8th repeat sequence, the
 recombinant protein showed markedly enhanced activity. Further
 mutagenesis analysis suggested that the arginine residue of this
 pentapeptide sequence is important for function. We also identified a
 weaker adjacent synergy region other than the PHSRN region, Epitope

mapping of an anti-FN monoclonal antibody that inhibits FN-mediated adhesion identified the same critical regions. A synthetic peptide containing the PHSRN sequence showed neither competitive inhibitory activity in solution nor synergy with a soluble RGD-containing peptide. However, when the same synthetic peptide was positioned via a covalent bond at the corresponding site of the normally inactive 8th repeat, it mediated an enhancement of adhesive activity. These results identify a pentapeptide site that synergistically enhances the cell-adhesive activity of the FN RGD sequence.

Identifiers--KeyWords Plus: SITE-DIRECTED MUTAGENESIS; BINDING DOMAIN; III MODULE; POLYMERASE; REGIONS; PROTEIN; RGD

Research Fronts: 92-3377 001 (BETA-1 INTEGRIN RECEPTORS; ADHESION MOLECULES; CELL-SURFACE EXPRESSION)

92-8077 001 (EXPRESSION OF A RECOMBINANT GENE; VIRAL ASSEMBLY PROTEIN; VACCINIA VIRUS VECTORS; DNA-BINDING INVITRO; XENOPUS OOCYTES; DIFFERENT EXTRACELLULAR DOMAINS)

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11/9/4 (Item 1 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

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10069826 99051681 PMID: 9834616

Identifying mRNAs involved potentially in corticopontine projection by modified differential display.

Takami T; Yoneda T; Nagano T; Hakuba A; Takagi H; Sato M
Department of Neurosurgery, Osaka City University Medical School, Japan.
Osaka city medical journal (JAPAN) Jun 1998, 44 (1) p17-33,

ISSN 0030-6096 Journal Code: 0376413

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

The basilar pons plays an important role in the establishment of the corticopontine projection by releasing a diffusible molecule which induces and directs collateral branchings along the corticospinal axon shafts. To reveal the molecule which is involved in the developing process of the corticopontine projection, we attempted to modify the mRNA differential display to search for genes expressed differentially in the basilar pons during the formation of the corticopontine projection by introducing the RGD motif (arginine-glycine-aspartate) in the primers of the polymerase chain reaction. With our modification, we were able to identify 99 mRNAs expressed in the basilar pons but not in the cerebral cortex where the apparent pontine-derived activity is not observed. Among these 99 gene fragments, 3 novel fragments could be selected as final candidates of the pontine-derived molecule based on their expression patterns. Modified

differential display is thus a promising method for identification of these genes.

Tags: Animal; Support, Non-U.S. Gov't

Descriptors: *Cerebral Cortex--physiology--PH; *Data Display; *Pons--physiology--PH; *RNA, Messenger--physiology--PH; *Synaptic Transmission--physiology--PH; Molecular Probes--genetics--GE; Oligopeptides--genetics--GE; Polymerase Chain Reaction; RNA, Messenger--metabolism--ME; Rats; Rats, Wistar

CAS Registry No.: 0 (Molecular Probes); 0 (Oligopeptides); 0 (RNA, Messenger); 99896-85-2 (arginyl-glycyl-aspartic acid)

Record Date Created: 19981229

11/9/5 (Item 2 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

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08257054 95014241 PMID: 7929152

The short amino acid sequence Pro-His-Ser-Arg-Asn in human fibronectin enhances cell-adhesive function.

Aota S; Nomizu M; Yamada K M

Laboratory of Developmental Biology, NIDR, National Institutes of Health, Bethesda, Maryland 20892.

Journal of biological chemistry (UNITED STATES) Oct 7 1994, 269 (40) p24756-61, ISSN 0021-9258 Journal Code: 2985121R

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

Synergistic sites in the central cell-adhesive domain of fibronectin (FN) substantially enhance cell adhesion mediated by the alpha 5 beta 1 integrin receptor for fibronectin. We characterized a critical minimal sequence needed for synergistic activity using site-directed mutagenesis and homology scanning using intramolecular chimeras. The minimal cell-binding domain of FN consisting of the 9th and 10th type III FN repeat was expressed in an Escherichia coli expression system. This protein retained high biological activity when assayed using a competitive inhibition assay for FN-mediated adhesion of baby hamster kidney or HT-1080 cells. In contrast, a construct consisting of the 8th and 10th repeat displayed very low biological activity. By replacing various portions of the 8th repeat with homologous 9th repeat segments, we mapped the synergistic region to the center of the 9th repeat. When a very short peptide sequence, Pro-His-Ser-Arg-Asn (PHSRN), from the 9th repeat was substituted for the homologous pentapeptide site in the 8th repeat sequence, the recombinant protein showed markedly enhanced activity. Further mutagenesis analysis suggested that the arginine residue of this pentapeptide sequence is important for function. We also identified a weaker adjacent synergy region other than the PHSRN region. Epitope mapping of an anti-FN monoclonal antibody that inhibits FN-mediated adhesion identified the same critical regions. A synthetic peptide containing the PHSRN sequence showed neither competitive inhibitory activity in solution nor synergy with a soluble RGD-containing peptide. However, when the same synthetic peptide was positioned via a covalent bond at the corresponding site of the normally inactive 8th repeat, it mediated an enhancement of adhesive activity. These results identify a pentapeptide site that synergistically enhances the cell-adhesive activity of the FN RGD sequence.

Tags: Human

Descriptors: *Cell Adhesion--drug effects--DE; *Fibronectins--chemistry--CH; Amino Acid Sequence; Antibodies, Monoclonal; Base Sequence; Epitope Mapping; Fibronectins--pharmacology--PD; Molecular Sequence Data; Oligopeptides--pharmacology--PD; Recombinant Proteins--pharmacology--PD; Structure-Activity Relationship

CAS Registry No.: 0 (Antibodies, Monoclonal); 0 (Fibronectins); 0 (Oligopeptides); 0 (Recombinant Proteins); 99896-85-2 (arginyl-glycyl-aspartic acid)

Record Date Created: 19941104

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Set Items Description

S1 46 MEPE
 S2 7 "MATRIX EXTRACELLULAR PHOSPHOGLYCOPROTEIN"
 S3 0 "MATRIX EXTRACELLULAR PHOSPHOGLYCOPROTEIN"DS
 S4 33322082 PY<=2000
 S5 24 S1 AND S4
 S6 33322082 PY<=2000DS
 S7 968 AU='YONEDA T.' OR AU='YONEDA TOSHIYUKI'
 S8 354 AU='NOMIZU M' OR AU='NOMIZU MOTOYOSHI' OR AU='NOMIZU MOTOY-
 SOHI'
 S9 675 AU='KUMAGAI Y' OR AU='KUMAGAI Y.' OR AU='KUMAGAI Y-I' OR A-
 U='KUMAGAI YOSHINARI' OR AU='KUMAGAI YOSHINORI'
 S10 1988 S7 OR S8 OR S9
 S11 5 S10 AND (PHOSPOHPEPTIDE OR RGD OR "T D L Q E R G D"
 OR MEPE OR OSTEOMALACIA) AND S4
 S12 286 S10 AND BONE?
 S13 238 S12 AND S4
 ? s s13 and (phosphoglycoprotein? or phosphoglycopeptide? or osteomalacia?)
 238 S13
 377 PHOSPHOGLYCOPROTEIN?
 20 PHOSPHOGLYCOPEPTIDE?
 7597 OSTEOMALACIA?
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 OSTEOMALACIA?)
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S3	0	"MATRIX EXTRACELLULAR PHOSPHOGLYCOPROTEIN"DS
S4	33322082	PY<=2000
S5	24	S1 AND S4
S6	33322082	PY<=2000DS
S7	968	AU='YONEDA T.' OR AU='YONEDA TOSHIYUKI'
S8	354	AU='NOMIZU M' OR AU='NOMIZU MOTOYOSHI' OR AU='NOMIZU MOTOY- SOHI'
S9	675	AU='KUMAGAI Y' OR AU='KUMAGAI Y.' OR AU='KUMAGAI Y-I' OR A- U='KUMAGAI YOSHINARI' OR AU='KUMAGAI YOSHINORI'
S10	1988	S7 OR S8 OR S9
S11	5	S10 AND (PHOSPOHPEPTIDE OR RGD OR "T D L Q E R G D" OR MEPE OR OSTEOMALACIA) AND S4
S12	286	S10 AND BONE?
S13	238	S12 AND S4
S14	0	S13 AND (PHOSPHOGLYCOPROTEIN? OR PHOSPHOGLYCOPEPTIDE? OR O- STEOMALACIA?)